

**REMARKS**

The Office Action mailed October 12, 2006 has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 1-3, 10-13, and 20-22 are now pending in this application. Claims 1-3, 10-13, and 20-22 stand rejected. Claims 2, 3, and 11-13 stand objected to. Claims 1-3, 11-13, and 20 are amended.

The objections to Claims 2, 3, and 11-13 due to informalities are respectfully traversed. Claims 2, 3, and 11-13 have been amended to provide proper antecedent basis. For at least the reasons set forth above, Applicants request that the objection to Claims 2, 3, and 11-13 be withdrawn.

The rejection of Claims 1, 2, 10-12, and 20-22 under 35 U.S.C. § 102(e) as being anticipated by Popescu (U.S. Patent 6,501,828) ("Popescu") is respectfully traversed.

Popescu describes a computed tomography apparatus (1) including a gantry (2) that includes an x-ray source (3) and an x-ray detector (4). The gantry is rotatable around a rotational center (5) thereof and a patient P. During operation of the computed tomography apparatus (1), the gantry (2) rotates while a fan-shaped x-ray beam (7) emanates from the x-ray source (3) through a collimator (11) to penetrate the patient P and is incident on an x-ray detector (4) (column 4, lines 45-50). The collimator (11) includes a plurality of spaced elements (13) and (14) that are each adjustable along a circular path in a direction that is perpendicular a rotational axis of the gantry (2). Notably, Popescu does not describe or suggest that collimator elements (13) and (14) move along a direction that is substantially parallel to the rotational axis of the gantry (2).

Claim 1 recites an imaging system including a gantry that includes "a radiation source configured to generate a beam; a collimator configured to collimate the beam to generate a collimated beam; and a detector configured to detect the collimated beam, wherein the collimator is separate from said detector and comprises at least one radio opaque member having a curved contour proportional to a contour of the detector, wherein said collimator includes a first portion and a second portion spaced

a distance from said first portion, wherein said first portion and said second portion are each configured to move along a direction substantially parallel to a rotational axis of said gantry . . . .”

Popescu does not describe or suggest an imaging system as recited in Claim 1. More specifically, Popescu does not describe or suggest an imaging system including a gantry that includes a first portion and a second portion spaced a distance from said first portion, wherein the first portion and the second portion are each configured to move along a direction substantially parallel to a rotational axis of the gantry. Rather, in contrast to the present invention, Popescu describes a collimator that includes a plurality of spaced elements that are each adjustable along a circular path in a direction that is perpendicular a rotational axis of a gantry. Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Popescu.

Claims 2, 10, 21, and 22 depend directly from independent Claim 1. When the recitations of Claims 2, 10, 21, and 22 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2, 10, 21, and 22 likewise are patentable over Popescu.

Claim 11 recites a computed tomography imaging system including a gantry that includes “an x-ray source configured to generate a beam; a collimator configured to collimate the beam to generate a collimated x-ray beam; and a detector configured to detect the collimated x-ray beam, wherein the collimator is separate from said detector and comprises at least one radio opaque member having a curved contour proportional to a contour of the detector, wherein said at least one radio opaque member comprises a first portion and a second portion spaced a distance from said first portion, wherein said first portion and said second portion are each configured to move along a direction substantially parallel to a rotational axis of said gantry . . . .”

Popescu does not describe or suggest a computed tomography imaging system as recited in Claim 11. More specifically, Popescu does not describe or suggest a computed tomography imaging system including a gantry that includes at least one radio opaque member having a first portion and a second portion spaced a distance from the first portion, wherein the first portion and the second portion are each configured to move along a direction substantially parallel to a rotational axis of the

gantry. Rather, in contrast to the present invention, Popescu describes a collimator that includes a plurality of spaced elements that are each adjustable along a circular path in a direction that is perpendicular a rotational axis of a gantry. Accordingly, for at least the reasons set forth above, Claim 11 is submitted to be patentable over Popescu.

Claim 12 depends directly from independent Claim 11. When the recitations of Claim 12 are considered in combination with the recitations of Claim 11, Applicants submit that dependent Claim 12 likewise is patentable over Popescu.

Claim 20 recites a method for reducing dosage of radiation incident on a subject. The method includes “providing a gantry that comprises a radiation source, a collimating device, and a detector; transmitting, from a radiation source, a beam of radiation toward the subject; collimating the beam of radiation before the beam reaches the subject; and detecting, by the detector, the collimated beam of radiation, wherein the collimating is performed by the collimating device that is separate from the detector and includes at least one radio opaque member having a curved contour proportional to a contour of a detector that detects the collimated beam, wherein the at least one radio opaque member includes a first portion and a second portion spaced a distance from the first portion, wherein the first portion and the second portion are each configured to move along a direction substantially parallel to a rotational axis of the gantry . . . .”

Popescu does not describe or suggest a method for reducing dosage of radiation incident on a subject as recited in Claim 20. Specifically, Popescu does not describe or suggest a method including providing a gantry that includes a collimating device that includes at least one radio opaque member having a first portion and a second portion spaced a distance from the first portion, wherein the first portion and the second portion are each configured to move along a direction substantially parallel to a rotational axis of the gantry. Accordingly, for at least the reasons set forth above, Claim 20 is submitted to be patentable over Popescu.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claim 1, 2, 10-12, and 20-22 be withdrawn.

The rejection of Claims 3 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Popescu in view of Okazaki (U.S. Patent 5,801,939) ("Okazaki") is respectfully traversed.

Popescu is described above. Okazaki describes a system including a coarse positioner (101), which is driven by a servo motor or the like, has a large range of movement, a relatively low positioning resolution, and a relatively slow response speed. The system includes a fine positioner (102) that is driven to produce movement by a piezoelectric actuator or the like. Notably, Okazaki does not describe or suggest moving collimator elements along a direction that is substantially parallel to a rotational axis of a gantry.

Applicants respectfully submit that the Section 103 rejections of Claims 3 and 13 is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. Neither Popescu nor Okazaki, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicants respectfully submit that it would not be obvious to one skilled in the art to combine Popescu with Okazaki because there is no motivation to combine the references suggested in the cited art itself.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levingood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion nor motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight

reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Since there is no teaching or suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejections be withdrawn.

Claim 3 depends from independent Claim 1, which is recited above. Neither Popescu nor Okazaki, considered alone or in combination, describe or suggest an imaging system as recited in Claim 1. Specifically, neither Popescu nor Okazaki, considered alone or in combination, describe or suggest an imaging system including a gantry that includes a first portion and a second portion spaced a distance from said first portion, wherein the first portion and the second portion are each configured to move along a direction substantially parallel to a rotational axis of the gantry. Rather, in contrast to the present invention, Popescu describes a collimator that includes a plurality of spaced elements that are each adjustable along a circular path in a direction that is perpendicular a rotational axis of a gantry, and Okazaki merely describes driving mechanism for various positioners. Accordingly, for at least the reasons set forth above, Applicants respectfully submit that Claim 1 is patentable over Popescu in view of Okazaki.

When the recitations of Claim 3 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claim 3 likewise is patentable over Popescu in view of Okazaki.

Claim 13 depends from independent Claim 11, which is recited above. Neither Popescu nor Okazaki, considered alone or in combination, describe or suggest a computed tomography imaging system as recited in Claim 11. Specifically, neither Popescu nor Okazaki, considered alone or in combination, describe or suggest a

computed tomography imaging system including a gantry that includes at least one radio opaque member having a first portion and a second portion spaced a distance from the first portion, wherein the first portion and the second portion are each configured to move along a direction substantially parallel to a rotational axis of the gantry. Rather, in contrast to the present invention, Popescu describes a collimator that includes a plurality of spaced elements that are each adjustable along a circular path in a direction that is perpendicular a rotational axis of a gantry, and Okazaki merely describes driving mechanism for various positioners. Accordingly, for at least the reasons set forth above, Applicants respectfully submit that Claim 11 is patentable over Popescu in view of Okazaki.

When the recitations of Claim 13 are considered in combination with the recitations of Claim 11, Applicants submit that dependent Claim 13 is also patentable over Popescu in view of Okazaki.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 3 and 13 be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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Phillip A. Shipley  
Registration No. 51,357  
ARMSTRONG TEASDALE LLP  
One Metropolitan Square, Suite 2600  
St. Louis, Missouri 63102-2740  
(314) 621-5070